

## REMARKS

Claims 7-9, 13-18, 20, 22-27, 32 and 34-35 have been amended herein to more clearly claim the subject matter which Applicants regard as their invention. None of the claims have been amended to overcome any prior art rejections. Claims 1-36 are currently pending in this application, and are at issue herein.

### Specification

The Office Action objects to various portions of the specification under 37 C.F.R. §1.71 as being not understood. Each of the objections raised in the Office Action will be individually addressed below.

Page 3, lines 18-19 – The Office Action objects to use of the term "alleviate" in the phrase "[t]his can alleviate an operation entering information of the attribute of the customer." In response, Applicants have amended paragraph [0013] to clarify that the term "alleviate" means to lessen or to remove. Paragraph [0022] has been amended in a similar manner. Paragraphs [0139]-[0141] of the specification provide support for this meaning. As used in the present application, the term "alleviate" means to reduce in a general sense, with such reduction capable of being to the point of actual removal.

Page 6, lines 32-33 – The Office Action objects to use of the term "correlated" in the phrase "the information and the attribute being correlated with each other." As used in the present application, the term "correlate" is not used to imply any type of statistical correlation. Applicants have amended paragraph [0012] to clarify that the term "correlate" is used to mean link or associate, and it not used to imply the statistical use of correlation.

Page 7, line 17 – The Office Action objects to use of the term "customer" in the phrase "extracting imaging information is used to determine an attribute of a customer (a non-purchaser)." In response, Applicants have amended paragraph [0036] to adopt the suggested term "potential customer or shopper" as set forth in the Office Action. Paragraph [0048] has been amended in a similar manner.

Page 9, lines 25-27 - The Office Action objects to use of the phrase "the step of obtaining an attribute includes determining from the information extracted the attribute of the customer corresponding to the image information extracted" as being unclear given the prior paragraph (paragraph [0046]) refers to a database for developing a marketing strategy. The Office Action questions whether the attribute is determined from extracted image data or from a database. In response, Applicants note that some attributes are determined only by extracted image data, while other attributes are determined by use of the database. For example, at paragraph [0131], the attribute of whether the target customer is a regular customer is determined by use of the customer database. While at paragraph [0140], the attribute is determined based on the extracted image data of the customer. Thus, Applicants submit that paragraph [0047] is clear as it currently reads. Simply because the prior paragraph refers to a database does not render paragraph [0047] unclear.

Use of the Term "block" – The Office Action objects to use of the term "block" throughout the specification, and questions whether the "blocks" are system modules. In response, Applicants note that the term "block", as used in the application, refers to both software and hardware modules. From a reading of the application, one skilled in the pertinent art would clearly understand that the term

"block" refers to both hardware and software modules. Applicants have also amended paragraph [0012] to clarify this meaning.

Accordingly, Applicants submit that the objections to the specification as indicated in the Office Action have been overcome, and respectfully request withdrawal thereof.

### Claims

Claims 1-4, 7-12 and 15-36 stand rejected under §112, first paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Each of the §112, first paragraph claim rejections is discussed below.

The Office Action rejects claims 1-4, 7-12, 15-23 and 35-36 for use of the term "block". The Office Action alleges that the definition of the term "block" is unclear. In response, Applicants have amended the specification, namely, paragraph [0012], to clarify that the term "block" is used to mean a hardware/software module. One skilled in the art reading the specification would clearly understand that the various recitations of block (e.g., analysis block, recording block, etc.) refer to a module. In fact, the Office Action supports this understanding by indicating that the term "block" is used to describe what is apparently a module. Accordingly, Applicants submit that the amendment to paragraph [0012] which clarifies the meaning of the term "block" overcomes the claim rejections. Applicants are allowed to be their own lexicographer, and use of the term "block" in these claims is understood to mean a module.

The Office Action rejects claims 17 and 24-36 for use of the term "image-sensed". Applicants note that various forms of "image-sensed" are used in these claims, with the various forms including "image-sensed", "image-sensing" and "image-senses". In response, Applicants have amended these claims for clarity purposes. Specifically, the term "image-sensed" has been amended to read "whose image information is obtained"; the term "image-sensing" has been amended to read "obtaining image information of"; and the term "image-senses" has been amended to read "obtains image information of". Accordingly, Applicants submit that the claim rejections have been overcome, and respectfully request withdrawal thereof.

Claims 1-36 stand rejected under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Each of the §112, second paragraph claim rejections is discussed below.

The Office Action rejects claims 1-3, 7-10, 12, 15-19, 21-22 and 35 for use of the term "block". As previously noted, Applicants have amended the specification, namely, paragraph [0012], to clarify that the term "block" refers to a hardware/software module. Since Applicants are allowed to be their own lexicographer, this amendment overcomes the claims rejections based on use of the term "block", and use of the term "block" in these claims is understood to mean a module.

The Office Action rejects claims 1, 5-7, 9, 13, 15, 18, 22-23 and 35 for use of the term "correlate". As previously noted, the term "correlate" is used in the present application to mean link or associate and is not used to imply statistical correlation. Applicants have amended paragraph [0012] to clarify this meaning of the term

"correlate". Accordingly, Applicants submit that the claim rejections have been overcome since the meaning of "correlate" is clear.

The Office Action rejects claim 8 as claiming the same functionality of independent claim 7 from which claim 8 depends. In response, Applicants submit that claim 8 is different from claim 7, because claim 8 recites that the first determination block determines the attribute of the shopper based on the extracted image information. Claim 7 simply recites that the attribute acquisition block obtains an attribute of a shopper corresponding to the extracted image information. While the claims are similar, claim 8 further limits claim 7 in terms of how the attribute is determined, and is therefore proper.

The Office Action rejects claim 14 as being unclear as to how the computer-readable medium being claimed can record information indicative of a non-purchasing customer when it is already stated that the customer has purchased an item. In response, Applicants have amended claim 14 to clarify that image information is obtained for both customers entering a shop and customers having purchased an item, and image information is extracted for customers whose image information was obtained only when entering the shop. Claim 13, which recites similar limitations, has been amended in a similar manner. Applicants submit that this amendment overcomes the claim rejections

The Office Action rejects claims 17 and 24-26 for use of the term "image-sensed" and formatives thereof. Applicants have amended these claims, as previously noted with respect to the §112, first paragraph claim rejections, to clarify the meaning of the term "image-sensed" and formatives thereof. Accordingly, Applicants submit that the claim rejections have been overcome.

The Office Action rejects claim 22 for use of the term "frequency". Applicants have amended claim 22, as well as claims 15-16, 23 and 35 to change the term "frequency" to "number". Applicants have also amended the specification at paragraph [0058] to clarify that the term "frequency" refers to a number of times a customer/shopper has appeared in a shop. Accordingly, Applicants submit that the claim rejections have been overcome.

The Office Action rejects claim 27 for use of the term "sex". Applicants have amended claim 27 to change "sex" to "gender". Applicants have also amended the specification at paragraph [0093] to clarify that the term "sex" refers to gender. Applicants submit that the claim rejections have been overcome.

The Office Action rejects claim 34 as indefinite for use of the phrase "said information being added to said attribute of said customer determined". In response, Applicants have amended this phrase to read "said information being added to said determined attribute of said customer". Applicants have also amended claim 32 in a similar manner. Applicants submit that this claim amendment renders claim 34 clear and overcomes the claim rejections.

Accordingly, in view of the above remarks and claim amendments, Applicants submit that the §112, first and second paragraph claim rejections have been overcome, and respectfully request withdrawal thereof.

#### §102 Claim Rejections

Claims 1-36 stand rejected under §102(b) as being anticipated by U.S. Patent No. 6,072,894 to Payne ("Payne"). Applicants respectfully traverse the claim rejections for at least the following reasons.

Payne is directed toward a face recognition system utilized to prevent various forms of fraudulent applications from being approved. The system of Payne uses a face recognition system to identify applicants who may be prone to perpetrating a fraud. The facial images that are obtained are compared against facial images previously stored in a database to detect a match. The database contains facial images of known fraud perpetrators, such as check fraud perpetrators, as Payne is directed toward using face recognition in a banking environment where individuals apply for loans, checking accounts, etc.

The facial image of an applicant is obtained by simply taking a picture of the applicant using, for example, a digital camera. The history of prior requests of other applicants are also stored in the database and the database is examined to see if the facial image of the applicant matches any facial image stored in the database. If a match is found, that applicant's history can be reviewed to determine if the applicant is a check fraud perpetrator or has committed other types of fraud. This enables banks to identify individuals likely to perpetrate a fraud when opening a new account, applying for a loan, etc.

In contrast, Applicant's invention is a computer-readable recording medium and management system which acquires both image information of a customer and data information of an item purchased by a customer, and correlates that information for recording in a database. In addition to obtaining image information of a customer, the present invention determines an attribute of the customer from the image information obtained. This attribute may be the gender and/or age of the customer, or other attributes such as the time of day the customer normally shops, whether the customer shops alone or with others, etc. By determining attributes of

the customers, items can be associated with those certain attributes, and strategies can be developed to increase sales of various items. Payne neither discloses nor suggests recording data of items purchased, determining attributes from image information, or correlating those attributes with the data of products purchased by customers to provide a data analysis.

Further, the present invention also records image data as well as attribute data from non-purchasing customers. Payne is devoid of any disclosure or suggestion of maintaining a database for non-purchasing individuals.

Accordingly, Applicants submit that claims 1-36 are allowable over Payne.

#### Conclusion

Applicants submit that the various objections to the specification and the §112 claim rejections have been overcome. With respect to the §102 claim rejections, Applicants' invention is a novel computer-readable medium and management system which includes features neither disclosed nor suggested in the prior art. Accordingly, claims 1-36 are believed allowable. Early notification to that effect is respectfully requested.

Respectfully submitted,

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